

Updated and annotated checklist of the opisthobranch molluscs (excluding Thecosomata and Gymnosomata) from the Azores archipelago (North Atlantic Ocean, Portugal)¹

Lista comentada y actualizada de los moluscos opistobranquios (excepto los Thecosomata y Gymnosomata) del archipiélago de las Azores (Océano Atlántico Norte, Portugal)¹

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ABSTRACT

The literature available on the opisthobranch molluscs of the Azores archipelago is reviewed in this study. A critical discussion is done on some of the most recent papers concerning this subject. A summary of the opisthobranch species from the Azores is presented. The opisthobranch fauna (excluding the planctonic Thecosomata and Gymnosomata) comprises 107 identified species distributed among six orders, Cephalaspidea s.l.: 50, Anaspidea: 5, Tylodinoidea: 2, Pleurobranchoidea: 6, Sacoglossa: 4 and Nudibranchia: 40.

RESUMEN

En el presente trabajo se ha hecho una revisión de la literatura existente sobre los moluscos opistobranquios del archipiélago de las Azores. Son discutidos los trabajos más recientes en relación con esta materia. Se incluye una sinopsis de las especies de opistobranquios de las Islas Azores. La fauna identificada (excluyendo las especies de los grupos plantónicos Thecosomata y Gymnosomata) comprende 107 especies que se distribuyen en seis órdenes, Cephalaspidea s.l.: 50, Anaspidea: 5, Tylodinoidea: 2, Pleurobranchoidea: 6, Sacoglossa: 4 and Nudibranchia: 40.

KEY WORDS: Mollusca, Opisthobranchia, Azores, Atlantic Ocean, Portugal

PALABRAS CLAVE: Mollusca, Opisthobranchia, Azores, Océano Atlántico, Portugal

INTRODUCTION

The first works concerning the Azorean opisthobranch molluscs are those by DROUËT (1858), WATSON (1883; 1886), SIMROTH (1888), DAUTZENBERG (1889), RUSH (1891), BERGH (1892), PILSBRY (1895), VAYSSIÈRE (1896), DAUT-

ZENBERG AND FISCHER (1896), LOCARD (1897) and BERGH (1899), based particularly on material collected during some scientific expeditions carried out during the last century, 'Challenger', 'Princesse Alice', 'L'Hirondelle' and 'Talisman'.

¹ Contribution of the Instituto Português de Malacologia

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Besides the description of new species, based on specimens captured in Azores, those studies given an important contribution to testacean opisthobranch taxonomy (*Cephalaspidea s.l.*) as well as to that of non-testacean forms of the orders Pleurobranchoidea and Nudibranchia from the archipelago.

During the twentieth century, especially in the second half, many works have contributed considerably to the knowledge of opisthobranch molluscs from Azores (SYKES, 1904; NOBRE, 1924; ODHNER, 1931; EALES, 1957, 1960; MARCUS, 1967, 1970; NORDSIECK, 1972; BOUCHET, 1975; 1977; NORDSIECK AND GARCÍA-TALAVERA, 1979; GARCÍA-TALAVERA, 1983; GOSLINER, 1990; 1994; AZEVEDO AND GOFAS, 1990; AZEVEDO, 1991; MENEZES, 1991; WIRTZ, 1992; 1995; 1999; WIRTZ AND MARTINS, 1993; LINDEN, 1994; 1995; ORTEA, VALDÉS AND ESPINOSA, 1994; PICTON AND MORROW, 1994; JENSEN, 1995; MORO, ORTEA, BACALLADO, VALDÉS AND PÉREZ-SÁNCHEZ, 1995; ORTEA, VALDÉS AND GARCÍA-GÓMEZ, 1996A; ORTEA, BACALLADO, PÉREZ-SÁNCHEZ AND VALLÉS, 1996B; VALDÉS AND ORTEA, 1996; VALDÉS, ORTEA, ÁVILA AND BALLESTEROS, 1996; ÁVILA AND AZEVEDO, 1996; 1997; ÁVILA, AZEVEDO, GONÇALVES, FONTES AND CARDIGOS, 1998; MORTON, BRITTON AND MARTINS, 1998; ORTEA AND MORO, 1999 and ÁVILA, 2000).

Very recently, the opisthobranch molluscs of the Azores were the goal of MIKKELSEN (1995) and WIRTZ (1998). MIKKELSEN (1995) given the account of cephalaspidean species of the archipelago and reported the occurrence of forty-six species. This author described shells and provided anatomical details for several species, possible synonymies and misidentifications, and also discussed zoogeographical affinities. WIRTZ (1998) presented an updated summary of the opisthobranch gastropods (except the *Cephalaspidea s.l.*), with a record of sixteen new species.

The detailed analysis of these recent contributions shows that several species previously recorded from the Azores were not considered in MIKKELSEN

(1995) and WIRTZ (1998). The list of opisthobranch molluscs occurring in the Azores archipelago is completed in the present study by means of a comprehensive literature review.

RESULTS

Based on the analysis of the known literature, it can be noted that two species, *Philine rugulosa* Dautzenberg and Fischer, 1896 and *Philine intricata* Monterosato, 1884 were excluded from Mikkelsen's inventory of the azorean cephalaspids and twenty-two species previously mentioned for the coasts of the Azores islands, were not included in WIRTZ (1998): four Pleurobranchoidea, one Sacoglossa and seventeen Nudibranchia (see species with an asterisk in the appendix). Four species previously mentioned, were referred to by Wirtz as first references for the archipelago. A complete taxonomic list of the opisthobranch species from the Azores is presented in an appendix.

DISCUSSION

Previous studies (BERGH, 1892, 1899; BOUCHET, 1977; AZEVEDO AND GOFAS, 1990; AZEVEDO, 1991; LINDEN, 1994; ORTEA ET AL. 1996A; VALDÉS AND ORTEA, 1996; ÁVILA AND AZEVEDO, 1997 and MORTON ET AL. 1998), mentioned opisthobranch species for the Azores not included in WIRTZ (1998) account. Even one genus (*Thrybopus*) and five species (*P. morosus*, *K. atlanticus*, *H. goslineri*, *P. stomascuta*, and *T. lophatus*) for which the Azores is the type-locality were not considered.

On the contrary WIRTZ (1998) claimed first records of species already mentioned in the literature. This was the case of *Fionna pinnata*, cited by BERGH (1892: 6) as *Fiona marina*, *Geitodoris planata*, recorded by AZEVEDO AND GOFAS (1990: 86), *Flabellina pedata*, cited by GOSLINER (1994) and *Marionia blainvillaea*, recorded by the author himself (WIRTZ, 1995: 182).

Among the species of opisthobranchs recorded from the Azores, eight have not been identified at species level. GOSLINER (1990) mentioned the occurrence of *Runcina* sp. noting that, with the exception of the body coloration, the specimens are anatomically similar to the species *R. coronata*, which leads the author to the hypothesis that the studied specimens may be conspecific with this species. However, given the present lack of a revision of this group showing the intra-specific and inter-specific variation among different geographic regions, the author decided not to attribute the specimens to any particular species. Although the anterior situation has not yet been altered, ORTEA AND MORO (1999) describe the species *Runcina hidalgensis* based on specimens which were collected in the Canaries and Azores, similar to those studied by GOSLINER (1990).

BOUCHET (1977) referred to an undetermined species of the genus *Platydoris* externally similar to *Platydoris stomascuta*, but with marked differences in the digestive and genital organs and also to other two specimens of the family Dorididae. After the anatomical study of these two dorids, the author concludes that identification is difficult considering the fact that these are the only specimens, collected at great depth (more than 1000 m) and that the external morphological characteristics may have suffered damage along the sampling procedures (BOUCHET 1977: 42-43 and 46-48).

WIRTZ (1998) based solely on the external morphology, distinguished four undetermined species from the Azores

(one sacoglossan and three nudibranchs). However, the assumption that specimens with small external morphological differences belong to different species can lead to misconceptions, once the biological species concept admits the existence of intra-specific variability. E.g. specimens of the genus *Tambja* were regarded as two different species: *Tambja* sp. (WIRTZ 1998: pl. 5, fig. 6, p. 14) and *Tambja ceutae* (WIRTZ 1998: pl. 5, fig. 5, pag. 14). Despite the chromatic differences between specimens observed by WIRTZ (1998) a more detailed study of the morphology and coloration of the mantle tubercles and radula (Cervera and Malaquias, unpublished data), revealed the existence of two distinct chromatic forms for *Tambja ceutae* and not two different species as suggested by Wirtz.

The opisthobranch molluscs of the Azores (excluding the planctonic Thecosomata and Gymnosomata) comprise a total of 107 identified species distributed as follows: Cephalaspidea s.l.: 50, Anaspidea: 5, Tylocinoidea: 2, Pleurobranchoidea: 6, Sacoglossa: 4 and Nudibranchia: 40.

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Appendix – Synopsis of the opisthobranch molluscs from the Azores
Apéndice – Sinopsis de los moluscos opistobranquios de las Azores

Order CEPHALASPIDEA s.l. Fischer, 1883

Family Ringiculidae Meeck, 1862

Ringicula blanchardi Dautzenberg and Fischer, 1896

DAUTZENBERG AND FISCHER (1896, 1897), MIKKELSEN (1995).

Ringicula semistriata Orbigny, 1853

NORDSIECK (1972), MIKKELSEN (1995).

Family Acteonidae D'Orbigny, 1835

Acteon incisus Dall, 1881

DAUTZENBERG AND FISCHER (1896), MIKKELSEN (1995).

Acteon monterosatoi Dautzenberg, 1889

DAUTZENBERG (1889), DAUTZENBERG AND FISCHER (1896, 1897), NORDSIECK [1972 as *Acteon* (*Metacteon*)], MIKKELSEN (1995).

Acteonina amabilis (Watson, 1883)

WATSON (1883, 1886 in both works as *Acteon*), DAUTZENBERG (1889 as *Acteon*), DAUTZENBERG AND FISCHER (1897 as *Acteon* (*Acteonina*)), NORDSIECK [1972 as *Callostracon* (*Ovacteonina*)], MIKKELSEN (1995).

Acteonina charii (Watson, 1883)

WATSON (1883, 1886 in both works as *Acteon*), DAUTZENBERG (1889 as *Acteon*), DAUTZENBERG AND FISCHER (1897 as *Acteon* (*Acteonina*))), NORDSIECK [1972 as *Callostracon* (*Ovacteonina*)], MIKKELSEN (1995).

Crenilabium exilis (Jeffreys, 1870)

DAUTZENBERG (1889 as *Acteon*), DAUTZENBERG AND FISCHER (1896, 1897 in both works as *Acteon* (*Lisacteon*)), WATSON (1886 as *Acteon*), NORDSIECK (1972 as *Crenilabrum*), MIKKELSEN (1995).

Inopinodon azoricus (Locard, 1897)

LOCARD (1897), BOUCHET (1975), MIKKELSEN (1995).

?*Japonacteon pusillus* (Forbes, 1843)

BOUCHET (1975), MIKKELSEN (1995).

Liocarenus ?globulinus (Forbes, 1843)

WATSON (1886 as *Acteon*). The identification made by Watson was based on a shell fragment collected at 1828 m, DAUTZENBERG (1889 as *Acteon*), NORDSIECK (1972), MIKKELSEN (1995).

Mysouffia turritus (Watson, 1886)

BOUCHET (1975), DAUTZENBERG AND FISCHER (1896 as *Acteon grimaldii*), MIKKELSEN (1995).

Ovulactaeon meeki Dall, 1889

NORDSIECK (1972), MIKKELSEN (1995).

Family Hydatinidae Pilsbry, 1893

Hydatina physis (Gmelin, 1794)

WIRTZ (1999)

Micromelo undatus (Bruguière, 1792)

NORDSIECK (1972), GARCÍA-TALAVERA (1983), MIKKELSEN (1995).

Family Diaphanidae Odhner, 1914

Diaphana seguenziae (Watson, 1886)

WATSON (1886), DAUTZENBERG (1889 as *Amphisphyra*), NORDSIECK (1972 as *Toledonia seguenziae*), MIKKELSEN (1995).

Family Retusidae Thiele, 1926

Pyrunculus ovatus (Jeffreys, 1870)

BOUCHET (1975), MIKKELSEN (1995).

Relichna simplex (Locard, 1897)

BOUCHET (1975), MIKKELSEN (1995).

Retusa leuca (Watson, 1883)

WATSON (1883, 1886 in both works as *Utriculus leucus*), DAUTZENBERG (1889 as *Tornatina*), NORDSIECK (1972), MIKKELSEN (1995).

Retusa truncatula (Bruguière, 1792)

DAUTZENBERG (1889 as *Tornatina truncatula* and also as *Tornatina mariei* n.sp.), NORDSIECK [1972 as *Retusa* (*Coleophysis*) *mariei*], NORDSIECK AND GARCÍA-TALAVERA (1979 as *Retusa mariae*), MIKKELSEN (1995), MORTON ET AL. (1998), ÁVILA ET AL. (1998), ÁVILA (2000).

Retusa multiquadrata Oberling, 1970

MIKKELSEN (1995), MORTON ET AL. (1998), ÁVILA ET AL. (1998).

Cyllichnina umbilicata (Montagu, 1803)

ÁVILA AND AZEVEDO (1996), ÁVILA ET AL. (1998), ÁVILA (2000).

Family Cyllichnidae Rudman, 1978

Acteocina protracta (Dautzenberg, 1889)

DAUTZENBERG (1889 as *Tornatina*), DAUTZENBERG AND FISCHER (1896, 1897 both works as *Tornatina*), MIKKELSEN (1995).

"*Bulla*" *semilaevia* Seguenza, 1879

WATSON (1886 as *Bulla*), DAUTZENBERG (1889 as *Bulla guernei* and also as *Bulla semilaevia*), DAUTZENBERG AND FISCHER (1896, 1897 both works as *Bulla guernei*), NORDSIECK [1972 as *Bulla* (*Leucophysena*)], MIKKELSEN (1995).

Cyllichna alba (Brown, 1827)

WATSON (1886), SYKES (1904), NORDSIECK (1972), MIKKELSEN (1995), ÁVILA ET AL. (1998).

Cyllichna chevreuxi Dautzenberg, 1889

DAUTZENBERG (1889), DAUTZENBERG AND FISCHER (1896, 1897), NORDSIECK (1972), MIKKELSEN (1995).

Cyllichna cylindracea (Pennant, 1777)

PILSBRY (1895), SYKES (1904), NORDSIECK (1972), MIKKELSEN (1995), ÁVILA ET AL. (1998), ÁVILA (2000).

Cyllichna oliviformis (Watson, 1883)

WATSON (1883, 1886 in both works as *Utriculus*), DAUTZENBERG (1889 as *Tornatina*), DAUTZENBERG AND FISCHER (1896, 1897 in both works as *Utriculus*), NORDSIECK (1972 as *Cylchnium*), MIKKELSEN (1995).

Cyllichna ovata Jeffreys, 1871

WATSON (1886), DAUTZENBERG (1889), DAUTZENBERG AND FISCHER (1896, 1897), LOCARD (1897), MIKKELSEN (1995).

Cyllichna pietrei Dautzenberg and Fisher, 1896

DAUTZENBERG AND FISCHER (1896, 1897), MIKKELSEN (1995).

Mamillocyllichna richardi Dautzenberg, 1889

DAUTZENBERG (1889 as *Cyllichna richardi*), DAUTZENBERG AND FISCHER (1897 as *Cyllichna*), NORDSIECK (1972), MIKKELSEN (1995).

Melascaphander imperceptus Bouchet, 1975

BOUCHET (1975), MIKKELSEN (1995).

Roxania monterosatoi Dautzenberg and Fischer, 1896

DAUTZENBERG AND FISCHER (1896, 1897), MIKKELSEN (1995).

Scaphander gracilis Watson, 1883

WATSON (1883, 1886), DAUTZENBERG (1889), DAUTZENBERG AND FISCHER (1896, 1897), LOCARD (1897), NORDSIECK (1972), BOUCHET (1975), MIKKELSEN (1995).

- Scaphander nobilis* Verrill, 1884
BOUCHET (1975), MIKKELSEN (1995).
Scaphander punctostriatus (Mighels, 1841)
WATSON (1886), DAUTZENBERG (1889), DAUTZENBERG AND FISCHER (1896, 1897), LOCARD (1897), NORDSIECK (1972), BOUCHET (1975), MIKKELSEN (1995).
Family Philinidae Gray, 1850
Philine approximans Dautzenberg and Fischer, 1896
DAUTZENBERG AND FISCHER (1896, 1897), BOUCHET (1975), MIKKELSEN (1995).
Philine azorica Bouchet, 1975
BOUCHET (1975), MIKKELSEN (1995).
Philine ?lima Brown, 1827
DAUTZENBERG (1889), NORDSIECK (1972), MIKKELSEN (1995).
Philine monilifera Bouchet, 1975
BOUCHET (1975), MIKKELSEN (1995), LINDEN (1995 as *P. cf. monilifera*).
Philine quadrata (S. Wood, 1839)
WATSON (1886), DAUTZENBERG (1889), NORDSIECK [1972 as *Laona* (Ossiania)], MIKKELSEN (1995); LINDEN (1995), ÁVILA ET AL. (1998), ÁVILA (2000).
Philine rugulosa Dautzenberg and Fischer, 1896
DAUTZENBERG AND FISCHER (1896).
Philine intricata Monterosato, 1884
LINDEN (1994; 1995).
Philine calva Linden, 1995
LINDEN (1995)
Philine condensa Linden, 1995
LINDEN (1995)
Family Runciniidae H. and Adams, 1854
Runcina adriatica Thompson, 1980
GOSLINER (1990), MIKKELSEN (1995), ÁVILA (2000).
Runcina coronata (Quatrefages, 1844)
GOSLINER (1990), MIKKELSEN (1995), ÁVILA (2000). All this authors refer to this species as *R. aurata* García, López, Luque and Cervera, 1986 that is a junior synonym of *R. coronata*. For a discussion of this subject see CERVERA ET AL. (1991: 200-201).
Runcina hidalgoensis Ortea and Moro, 1999
GOSLINER (1990), MIKKELSEN (1995), ÁVILA (2000) all this authors as *Runcina* sp.. ORTEA AND MORO (1999: 67), São Miguel, Azores.
Family Bullidae Lamarck, 1801
Bulla pinguicula Watson, 1886
WATSON (1886), DAUTZENBERG (1889), NORDSIECK (1972 as *Roxania*), MIKKELSEN (1995).
Bulla striata Bruguière, 1792
DROUËT (1858), DAUTZENBERG (1889), RUSH (1891), NORDSIECK (1972), GARCÍA-TALAVERA (1983), MIKKELSEN (1995), ÁVILA ET AL. (1998), ÁVILA (2000).
Family Haminoeidae Pilsbry, 1895
Atys macandrewii E. A. Smith, 1872
MARCUS (1970), NORDSIECK [1972 as *Atys* (*Limulatys*)], GARCÍA-TALAVERA (1983), MIKKELSEN (1995), ÁVILA (2000).
Haminoea hydatis (Linné, 1758)
GARCÍA-TALAVERA (1983), MIKKELSEN (1995), ÁVILA ET AL. (1998 as *H. cf. hydatis*), ÁVILA (2000).

Haminoea orteai Talavera, Murillo and Templado, 1987

MIKKELSEN (1995), MORTON ET AL. (1998), ÁVILA ET AL. (1998), ÁVILA (2000).

Order ANASPIDEA Fischer, 1883

Family Akeridae Pilsbry, 1893

Akera bullata Müller, 1776

NOBRE (1924), ÁVILA (2000).

Family Aplysiidae, Lamarck, 1809

Aplysia parvula Guilding in Mörch, 1863

EALES (1960), WIRTZ (1998), ÁVILA ET AL. (1998).

Aplysia depilans Gmelin, 1791

AZEVEDO AND GOFAS (1990 as *Aplysia* sp), WIRTZ (1998), ÁVILA ET AL. (1998),

ÁVILA (2000).

Aplysia fasciata Poiret, 1789

WIRTZ AND MARTINS (1993), ÁVILA AND AZEVEDO (1997), WIRTZ (1998), ÁVILA

(2000).

Aplysia punctata Cuvier, 1803

SIMROTH (1888), ÁVILA AND AZEVEDO (1997), WIRTZ (1998), MORTON ET AL.

(1998), ÁVILA ET AL. (1998), ÁVILA (2000).

Order TYLODINOIDEA Gray, 1847

Family Tylodinidae Gray, 1847

TyloDNA perversa (Gmelin, 1791)

DAUTZENBERG (1889 as *TyloDNA citrina*), WIRTZ (1998), ÁVILA ET AL. (1998),

ÁVILA (2000).

Family Umbraculidae Dall, 1889

Umbraculum umbraculum (Lightfoot, 1876)

MENEZES (1991), ÁVILA ET AL. (1998), ÁVILA (2000).

Order PLEUROBRANCHOIDEA Féruccac, 1822

Family Pleurobranchidae Féruccac, 1822

Pleurobranchus testudinarius Cantraine, 1836

WIRTZ AND MARTINS (1993), WIRTZ (1992, 1998), ÁVILA ET AL. (1998), ÁVILA

(2000).

**Pleurobranchaea morosa* (Bergh, 1892)

BERGH (1892: 28 as *Pleurobranchillus morosus*). Type-locality channel Pico-Faial, 130 m depth.

**Pleurobranchaea meckelli* Blainville, 1825

BERGH (1899: 26). Near Terceira island, 599m depth.

**Berthella plumula* (Montagu, 1803)

BERGH (1892: 19, 1899: 27 as *Pleurobranchus plumula*). Channel Pico-Faial, 130 m depth.

**Berthella aurantiaca* (Risso, 1818)

BERGH (1892: 26 as *Pleurobranchus aurantiacus*). Channel Pico-Faial, 130 m depth.

Berthellina edwardsi (Vayssiére, 1896)

VAYSSIÈRE (1896: 1902), AZEVEDO AND GOFAS (1990 AS *BERTHELLINA* SP.),

WIRTZ (1998), ÁVILA ET AL. (1998), ÁVILA (2000).

Order SACOGLOSSA Ihering, 1876

Family Plakobranchidae Gray, 1840

Elysia ornata (Swainson, 1840)

WIRTZ (1995, 1998), ÁVILA ET AL. (1998), ÁVILA (2000).

**Elysia viridis* (Montagu, 1804)

AZEVEDO (1991: 27), ÁVILA (2000). Santa Maria island.

- Family Hermaeidae H. and A. Adams, 1854
Aplysiopsis formosa Pruvot-Fol, 1953
JENSEN (1995), WIRTZ (1998); ORTEA, ET AL. (1998), ÁVILA (2000).
- Family Limapontiidae Gray, 1847
Placida verticillata Ortea, 1981
ÁVILA (2000).
Placida sp.
(see WIRTZ, 1998: 3), ÁVILA ET AL. (1998).
- Order NUDIBRANCHIA Blainville, 1814
- Family Onchidorididae Alder and Hancock, 1845
Diaphorodoris luteocincta (M. Sars, 1870)
WIRTZ AND MARTINS (1993), WIRTZ (1998), ÁVILA ET AL. (1998), ÁVILA (2000).
- Family Triophidae Odhner, 1941
Kaloplocamus ramosus (Cantraine, 1835)
WIRTZ (1998), ÁVILA ET AL. (1998), ÁVILA (2000).
**Kaloplocamus atlanticus* (Bergh, 1892)
BERGH (1892: 12, 1899: 19 as *Euplocamus atlanticus*), NORDSIECK (1972 as *Kaloplocamus ramosus* f. *atlanticus*). Type-locality channel Pico-Faial, 130 m depth.
- Family Polyceridae Alder and Hancock, 1845
Tambja ceutae García-Gómez and Ortea, 1988
WIRTZ AND MARTINS (1993), ORTEA ET AL. (1996B), WIRTZ (1995 as *Tambja ceutae* and also as *Robostra europea*), WIRTZ (1998 as *Tambja ceutae* and as *Tambja* sp.), ÁVILA ET AL. (1998) and ÁVILA (2000) as *Tambja ceutae* and as *Tambja* sp..
Limacia clavigera (Müller, 1776)
WIRTZ (1998), ORTEA ET AL. (1996B), ÁVILA ET AL. (1998), ÁVILA (2000).
Polycera elegans (Bergh, 1894)
WIRTZ AND MARTINS (1993), WIRTZ (1998), ORTEA ET AL. (1996B), ÁVILA ET AL. (1998), ÁVILA (2000).
Polycera quadrilineata (Müller, 1776)
WIRTZ (1998), ORTEA ET AL. (1996B), MORTON ET AL. (1998), ÁVILA ET AL. (1998), ÁVILA (2000).
Polyceratidae indet.
(see WIRTZ, 1998: 13).
- Family Chromodorididae Bergh, 1891
Chromodoris britoi Ortea and Pérez, 1983
(see GOSLINER, 1990 [as *C. clenchi*]: 148, ORTEA ET AL., 1994 and WIRTZ, 1998: 8 for a discussion on this species), WIRTZ (1994; 1995), ÁVILA ET AL. (1998), ÁVILA (1999).
Chromodoris purpurea (Risso in Guérin, 1831)
GOSLINER (1990), WIRTZ (1994; 1995; 1998), MORTON ET AL. (1998), ÁVILA ET AL. (1998), ÁVILA (2000).
Chromodoris krohni (Vérany, 1846)
ÁVILA ET AL. (1998), ÁVILA (2000).
**Chromodoris goslineri* Ortea and Valdés, 1996
ORTEA ET AL. (1996a: 143). Type-locality Santa Maria island.
Hypselodoris picta (Schultz in Philippi, 1836).
This species was recorded for the first time from Azores by BERGH (1899: 7) as *Chromodoris cantrainei*. GOSLINER (1990: 155) recorded to it as *H. webbi* and ORTEA ET AL. (1996a: 56 as *H. picta azorica*) and WIRTZ (1994 as *H. webbi*; 1998: 8 as *H. picta azorica*). ÁVILA ET AL. (1998), ÁVILA (2000).

Hypselodoris fontandraui (Pruvot-Fol, 1951)

WIRTZ (1995, 1998), ÁVILA ET AL. (1998), ÁVILA (2000).

Hypselodoris midatlantica Gosliner, 1990

(see GOSLINER, 1990: 152), ORTEA ET AL., 1996a: 32 and WIRTZ, 1998: 9 for a discussion on this species). ÁVILA ET AL (1998: 504), ÁVILA (2000). This species is usually mentioned under the name *H. tricolor*.

Glossodoris edmundsi Cervera, García-Gómez and Ortea, 1989

GOSLINER (1990), WIRTZ (1995, 1998), ÁVILA ET AL. (1998), ÁVILA (2000).

Family Aldisidae Odhner, 1939

**Aldisa zetlandica* (Alder and Hancock, 1854)

BERGH (1899: 8), NORDSIECK (1972), PICTON AND MORROW (1994). Azores 38° 30' 30" N-38° 31' N and 29° 09' 30" W-29° 10' 30" W, 845 m depth.

Aldisa smaragdina Ortea, Pérez and Llera, 1982

WIRTZ (1998), ÁVILA ET AL. (1998: 504), ÁVILA (2000). S. Ávila, cited this species as *A. binotata* according to the synonymy proposed by MILLEN AND GOSLINER (1985).

Family Dorididae Rafinesque, 1815

**Doris ocelligera* (Bergh, 1881)

AZEVEDO AND GOFAS (1990: 86), ÁVILA ET AL. (1998: 504), ÁVILA (2000). Azores, Flores island.

**Thorybopus lophatus* Bouchet, 1977

BOUCHET (1977: 43). Azores type-locality 37° 37' N-25° 32' W, 395-465 m depth.

*Dorididae sp.1

BOUCHET (1977). See BOUCHET (1977: 46) for a discussion on this species. Azores 37° 57' N-25° 33' W, 1070-1235 m depth.

*Dorididae sp.2

BOUCHET (1977). See BOUCHET (1977: 47) for a discussion on this species. Azores 37° 57' N-25° 33' W, 330 m depth.

Family Discodorididae Bergh, 1891

Discodoris atromaculata (Bergh, 1880)

WIRTZ AND MARTINS (1993), WIRTZ (1994; 1995, 1998), MORTON ET AL (1998 as *Peltodoris atromaculata*), ÁVILA ET AL. (1998), ÁVILA (2000).

**Discodoris tristis* Bergh, 1892

BERGH (1899: 11). Ponta Delgada, São Miguel island, 98 m depth.

**Discodoris cf. millegiana* (Alder and Hancock, 1854)

ÁVILA AND AZEVEDO (1997: 328), ÁVILA (2000: appendix), Azores, Formigas Islets. According to Ávila (personal communication) this was a misidentification with an unknown species.

Geitodoris planata (Alder and Hancock, 1846)

AZEVEDO AND GOFAS (1990 as *Geitodoris cf. planata*), WIRTZ (1998), ÁVILA ET AL (1998), ÁVILA (2000).

Family Kentrodorididae Bergh, 1892

**Jorunna tomentosa* (Cuvier, 1804)

MORTON ET AL. (1998: 151).

Family Platydorididae Bergh, 1891

Platydoris argo (Linné, 1767)

BERGH (1899), WIRTZ AND MARTINS (1993), WIRTZ (1994; 1998), ÁVILA ET AL (1998), ÁVILA (2000).

**Platydoris stomascuta* Bouchet, 1977

BOUCHET (1977: 35). Azores 37° 43' N-29° 04' W, 370-450 m depth.

**Platydoris* sp.

BOUCHET (1977). See BOUCHET (1977: 42) for a discussion on this species.
Azores 37° 39' N-25° 35' W, 330 m depth.

Taringa sp.

(see WIRTZ, 1998: 12).

Family Phyllidiidae Rafinesque, 1815

**Phyllidiopsis berghi* Vayssiére, 1902

BOUCHET [1977: 48 cited this species as *P. gynenopla* but according to VALDÉS AND ORTEA (1996: 3), it is a synonym of *P. berghi*], VALDÉS AND ORTEA (1996). Azores 38° 22' -28° 48W, 525-600 m depth.

**Reticulidia gofasi* Valdés and Ortea, 1996

VALDÉS AND ORTEA (1996: 7). Azores 38° 30' 00' N-27° 14' 05" W, 75-106 m depth.

Family Dendrodorididae O'Donoghue, 1924

**Dendrodoris limbata* (Cuvier, 1804)

BERGH (1892: 16 as *Doriopsis limbata*). Channel Pico-Faial, 130 m depth.

Dendrodoris herytra Valdés and Ortea, 1996

ODHNER (1931 as *D. grandiflora*), VALDÉS ET AL. (1996), WIRTZ (1995 as *Dendrodoris* n.sp., 1998), ÁVILA ET AL. (1998), ÁVILA (2000).

Family Tritoniidae Lamarck, 1809

**Tritonia (Tritonodoxa) griegi* Odhner, 1922

BOUCHET (1977: 53). Azores 47° 46' N – 8° 04' W, 820-940 m depth.

Marionia blainvillea (Risso, 1818)

WIRTZ (1995, 1998), ÁVILA ET AL. (1998), ÁVILA (2000).

Family Scyllaeidae Fischer, 1883

Scyllaea pelagica Linné, 1758

SIMROTH (1888), MORTON ET AL. (1998), ÁVILA ET AL. (1998), ÁVILA (2000).

Family Phylliroidae Féruccac, 1821

Phylliroe cf. *atlantica* Bergh, 1871

WIRTZ (1998).

Family Dotoidae Gray, 1853

Doto floridicola Simroth, 1888

SIMROTH (1888), WIRTZ (1998), ÁVILA ET AL. (1998), ÁVILA (2000).

Family Flabellinidae Bergh, 1889

Flabellina pedata (Montagu, 1815)

GOSLINER (1994), WIRTZ (1998), ÁVILA ET AL. (1998), ÁVILA (2000).

Family Facelinidae Bergh, 1889

Caloria elegans (Alder and Hancock, 1845)

MORO ET AL (1995), WIRTZ (1998), ÁVILA ET AL. (1998), ÁVILA (2000).

Family Aeolidiidae D'Orbigny, 1834

**Aeolidiella sanguinea* (Norman, 1877)

MORTON ET AL. (1998: 79), ÁVILA (2000).

Spurilla neapolitana Delle Chiaje, 1823

SIMROTH (1888) AND WIRTZ (1998). Cited by both authors as *S. sargassicola*.

Family Glaucidae Menke, 1828

Glaucus atlanticus Forster, 1777

SIMROTH (1888), BERGH (1899), WIRTZ (1998).

Family Fionidae Alder and Hancock, 1855

Fiona pinnata Eschscholtz, 1831

BERGH (1892 as *Fiona marina*), WIRTZ (1998), MORTON ET AL. (1998), ÁVILA ET AL. (1998), ÁVILA (2000).